



PRACTICE SET

End Semester Examination, December-2025

Program: BPT

Semester: I

Subject: Energy & Environmental Sciences

Subject Code: 23A104

COURSE OUTCOME

At the end of course, candidate will able to

CO 1: Understand the various aspects of environmental issues.

CO 2: Describe the physical, chemical, and biological components of the ecosystem.

CO 3: Analyze natural systems and human-designed systems on the basis of their similarity and differences.

CO 4: Apply their knowledge for prevention of environmental degradation.

Section A

(5x18=90 Marks)

1. Describe the multidisciplinary nature of environmental studies. [CO2] [Unit 1] [Understand LOT]
2. Define natural resources and its types. [CO3] [Unit 1] [Remember LOT]
3. Discuss the benefits and problems associated with dams. [CO1] [Unit 1] [Understand LOT]
4. Write short notes on use and exploitation of mineral resources. [CO1] [Unit 1] [Remember LOT]
5. Describe soil erosion and desertification. [CO1] [Unit 1] [Understand LOT]
6. Define ecosystem and its components. [CO2] [Unit 2] [Remember LOT]
7. Describe the term producer, consumer and decomposers in the context of ecosystem. [CO2] [Unit 2] [Understand LOT]
8. What do you understand about ecological succession? [CO2] [Unit 2] [Remember LOT]
9. Write in brief about the energy flow in the desert ecosystem. [CO2] [Unit 2] [Understand LOT]
10. Discuss in brief about the different “values of biodiversity”. [CO3] [Unit 3] [Understand LOT]
11. Elaborate the bio-geographical classification of India. [CO3] [Unit 3] [Remember LOT]

12. Define genetic diversity, species diversity and ecosystem diversity [CO4] [Unit 3] [BTL Remember LOT]
13. What are the “threats to biodiversity”? [CO1] [Unit 3] [Remember LOT]
14. Write down short notes on solid waste management. [CO4] [Unit 4] [Remember LOT]
15. Discuss Air Prevention and Control of Pollution act. [CO4] [Unit 5] [Understand LOT]
16. Describe rain water harvesting methods. [CO4] [Unit 5] [Understand LOT]
17. Elaborate about the effect of global warming on climate change. [CO1] [Unit 5] [Understand LOT]
18. Discuss the effect of population growth on the environment. [CO1] [Unit 6] [Understand LOT]

Section B

(10x13=130 Marks)

19. Discuss the importance of forest resources, causes of its over-exploitation and prevention methods. [CO4] [Unit 1] [Understand LOT]
20. Differentiate between the importance of renewable and non renewable resources in individuals life. [CO3] [Unit 1] [Analyze HOT]
21. Describe “sustainable development”? Describe the methods of sustainable water resources development. [CO4] [Unit 1] [Understand LOT]
22. Differentiate between the role of primary and secondary consumer for maintenance of an ecosystem.[CO2] [Unit 2] [Analyze HOT]
23. Define “ecological pyramid”. Illustrate the energy flow in aquatic ecosystems by diagram. [CO2] [Unit 2] [Remember LOT]
24. Why is “Bharat" known as a "mega-diversity nation”? [CO3] [Unit 3] [Analyze HOT]
25. Explain the following terms with examples in context of Indian biodiversity: extinct, endangered and endemic species? [CO3] [Unit 3] [Understand LOT]
26. Enumerate the causes, effects and control measures for water pollution. [CO4] [Unit 4] [Understand LOT]
27. Elaborate the causes, effects and control measures for nuclear hazards. [CO4] [Unit 4] [Remember LOT]
28. Discuss the problems associated with resettlement and rehabilitation of people. [CO1] [Unit 5] [Understand LOT]
29. Differentiate between the role of information technology on the environment and human health. [CO1] [Unit 6] [Analyze HOT]
30. Elaborate about the various “Family Welfare Programs” running in India. Their objectives and implementation levels. [CO1] [Unit 6] [[Understand LOT]

31. What are the major social issues related to environmental degradation in India? analyze the issues with examples. [CO1] [Unit 6] [BTL Analyze HOT]

Section C

(20x9=180 Marks)

32. Differentiate between In-situ and Ex-situ conservation methods of biodiversity. Provide examples of each. Explain the concept of biodiversity hotspots. [CO3] [Unit 3] [Analyze HOT]

33. Evaluate the role of an individual in conservation of different natural resources. [CO4] [Unit 1] [Evaluate HOT]

34. Differentiate between the role of individuals and the government toward pollution control? Explain in detail about legal acts for pollution control. [CO4] [Unit 4] [Analyze HOT]

35. Analyze the different types of disasters by categorizing them into natural and man-made disasters. Explain how government agencies play a coordinated role in managing each type with suitable examples. [CO4] [Unit 4] [Analyze HOT]

36. How can we control the causes and effects of noise pollution and nuclear hazards in urban areas? [CO4] [Unit 4] [Analyze HOT]

37. How global warming, acid rain, ozone layer depletion are interrelated to each other? Evaluate what effects are they producing in the climatic changes? [CO1] [Unit 5] [Evaluate HOT]

38. Evaluate the concept of shifting resources use from unsustainable to sustainable, its importance and effect. [CO3] [Unit 5] [Evaluate HOT]

39. Discuss the causes and effects of urbanization on the environment and human health in Indian cities. Suggest methods for sustainable urban planning. [CO4] [Unit 6] [Analyze HOT]

40. Evaluate the impact of human activities on ecosystems and biodiversity in India. How can environmental education help in conservation efforts? [CO4] [Unit 6] [Evaluate HOT]

Summary Sheet: Course Outcome Wise

Course Outcome	Question No.	Marks
CO 1	3, 4, 5, 13, 17, 18, 28, 29, 30, 31, 37	90
CO 2	1, 6, 7, 8, 9, 22, 23	45
CO 3	2, 10, 11, 24, 25, 33, 38	85
CO 4	12, 14, 15, 16, 19, 20, 21, 26, 27, 32, 34, 35, 36, 39, 40	180
	Total	400

Unit Wise

Unit	Question No.	Marks
1	1, 2, 3, 4, 5, 19, 20, 21, 32	75
2	6, 7, 8, 9, 22, 23	40
3	10, 11, 12, 13, 24, 25, 33	60
4	14, 26, 27, 34, 35, 36	85
5	15, 16, 17, 28, 37, 38	65
6	18, 29, 30, 31, 39, 40	75
	Total	400

BTL Wise

BTL	Question No.	Marks
LOT	1-19, 21, 23, 25, 26, 27,28,30, 31	170
HOT	20, 22, 24, 29, 31, 32-40	230
	Total	400

Prepared By: Dr. Deepali Kumari (PT)

Disclaimer: - This is a Practice Set. The Question in End term examination will differ from the Practice set. This Practice set is meant for practice only.